

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. After amending the claims as set forth above, claims 1-13 and 15-17 are now pending in this application.

Applicant wishes to thank the Examiner for the careful consideration given to the claims as well as indicating that claim 13 is allowed.

Claim objections

Claim 17 is objected to as being of improper dependent form for failing to further limit the subject matter of a previous claim. In particular, the PTO asserts that the molding press is external to the apparatus for picking up a tacky plastic product and does not further limit claim 1. Claim 17 has been amended so as to be drawn to a system comprising the molding press and the apparatus for picking up a tacky plastic product. Favorable reconsideration of the objection is respectfully requested.

Rejection of claim 15 based on 35 U.S.C. 112

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as indefinite. This claim has been amended to recite that plastic residues are stripped away “in a cleaning device.” Moreover, by amending independent claim 1 to require that the plastic be a “freshly extruded tacky” plastic product, the PTO’s question about the source of the plastic residue is answered. Favorable reconsideration of the claim is respectfully requested.

Rejection of claims 1-2, 4-5, and 14 based on Yamazaki and Mueller.

Claims 1-2, 4-5, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,074,163 (“Yamazaki”) in view of U.S. Patent 6,209,710 (“Mueller”). For at least the following reasons, this rejection is traversed.

Claim 1 (as amended) requires the steps of “setting down on longitudinal margins of the conveyor belt one or more resilient carrier plates, wherein the carrier plates settle resiliently on a surface of the conveyor belt . . . and picking up the freshly extruded tacky plastic product by the one or more carrier plates by slipping the carrier plate or plates between the plastic product and the surface of the belt and peeling the plastic product off the surface of the belt.” Yamazaki, Mueller, or any combination thereof does not teach or suggest this combination of features, and any combination of Yamazaki and Mueller is improper.

(1) *Yamazaki and Mueller do not teach a freshly extruded tacky plastic product*

Yamazaki discloses at least two scooping blocks 4 to hold a hard plate 1. Mueller is relied upon for the teaching of the conveyor having a belt and the products being plastic products, i.e., plastic bottles. However, neither reference nor a combination thereof discloses the method being applied to a freshly extruded tacky plastic product.

For example, the hard plate of Yamazaki is lifted up with blown air before the scooping blocks 4 are inserted under the plate 1. In contrast, claim 1 does not require a gas injection mechanism and such a gas injection mechanism would not work because the tacky plastic product has a greater adhesion to the conveyer than the hard plate 1. Additionally, if a little gas/air gets between the conveyer and the hard plate, the plate will be lifted so as to float over the conveyer. It is obvious for a person skilled in the art that a strand of freshly extruded plastic which is lying on a conveyer belt will never lift up completely by using a gas injection mechanism because the freshly extruded tacky plastic lacks the inner strength to do so (such tacky plastic may be analogous to, for example, dough). Furthermore, a gas injection mechanism would harm the side surfaces of the plastic. Mueller does not cure this deficiency of Yamazaki because Mueller is not applicable to freshly extruded tacky plastic products either. In particular, Mueller is applicable to glass or plastic bottles, which are not tacky but are hard and easier to separate from a carrying surface than a freshly extruded tacky plastic product.

It is noted that, in relation to “tacky” claim 14 (which has been canceled but did depend from claim 1), the PTO asserts that “the device of Yamazaki is fully capable of picking up a tacky plastic product.” (Paragraph 6 of the Office Action.) As detailed above, the device of Yamazaki is not capable of picking up a tacky plastic product. Also, because claim 1 (as was cancelled claim 14) is a method claim, the combination of Yamazaki of Mueller must disclose the picking up of a tacky plastic product regardless of any assertion that it is merely capable of it.

Thus, the teachings of Yamazaki or Mueller or a combination thereof cannot be used on a freshly extruded tacky plastic product because such a plastic product is not comparable with a hard plate, a plastic bottle or other “hard plastics.” Because any combination of Yamazaki or Mueller does not teach or suggest a freshly extruded tacky plastic product, claim 1 is not rendered unpatentable over the prior art.

(2) *Yamazaki and Mueller do not teach the carrier plates settle resiliently on the surface of the conveyor belt*

Yamazaki discloses scooping blocks 4 which are not resilient and do not resiliently settle on the surface of the conveyor belt. In fact, Yamazaki teaches that a gas injection means produces a high pressure gas under the hard plate 1, which causes a buoyancy effect so that the plate can be lifted up so that the scooping block can be inserted under the plate as the plate floats. (Column 3, lines 5-25 of Yamazaki.) There is no teaching, or suggestion that the scooping blocks resiliently settle on the surface of a conveyor belt, i.e., are slightly bent as they are pressed against the belt. Mueller does not cure this deficiency of Yamazaki because Mueller does not teach carrier plates that resiliently settle on the surface of a conveyor belt. Thus, the teachings of Yamazaki or Mueller or a combination thereof do not teach or suggest “wherein the carrier plates settle resiliently on a surface of the conveyor belt as the carrier plates press against the conveyor belt.” Because any combination of Yamazaki or Mueller does not teach or suggest carrier plates that resiliently settle on the surface of a conveyor belt, claim 1 is not rendered unpatentable over the prior art.

(3) *Yamazaki and Mueller do not teach the use of carrier plates to peel the plastic product off the belt*

The step of picking up the tacky product “by the one or more carrier plates by slipping the carrier plate or plates between the plastic product and a surface of the belt and peeling the plastic product off the surface of the belt” cannot be said to occur in any combination of Yamazaki and Mueller because of the gas injection mechanism of Yamazaki. In particular, if the gas injection mechanism is used as disclosed in Yamazaki, there is no peeling of the plate because the plate is already lifted off conveyor rollers 3 by the gas -- not by the scooping blocks. (See Fig. 6 of Yamazaki). Mueller does not fix this deficiency. Because any combination of Yamazaki or Mueller does not teach or suggest that the carrier plates peel the plastic product off the surface of the belt, claim 1 is not rendered unpatentable over the prior art.

(4) *Any combination of Yamazaki and Mueller is improper*

Claim 1 is improperly rejected because any combination of Yamazaki and Mueller is improper because there is no motivation or suggestion to combine the teachings with Yamazaki and Mueller as suggested by the PTO. First, there is no teaching in the prior art

that would motivate one to combine the teachings of Yamazaki and Mueller. In addition, Yamazaki teaches a system for picking up glass plates at their bottom surface while Mueller teaches a system for picking up plastic bottles by their neck. These are two entirely different types of systems used to pick up entirely different products. One with ordinary skill in the art would not be motivated to combine these two systems since they deal with entirely different methods for picking up very differently shaped products.

The PTO asserts that “there is a teaching in the prior art to combine the teachings of Yamazaki and Mueller” and such a “teaching was referenced in C1/L6-18 and C4/L30-32 of Mueller clearly shown on page 6 of the First Action.” (Paragraph 1 of outstanding office action.) Column 1, lines 6-18 of Mueller merely describes that the disclosed method and apparatus of Mueller is used for conveying plastic or glass containers in a hanging position, while column 4, lines 30-42 of Mueller merely describes a band conveyor. Neither passage provides any teaching as to why one in the art would be motivated to combine the teachings of a method of suspended conveying of bottle containers (Mueller) with a method of removing a plate having been fired in a furnace (Yamazaki).

The PTO next asserts that “device of Yamazaki and Mueller are in the same field of endeavor, which is for picking up products.” (Paragraph 1 of outstanding office action.) However, this assertion does not appropriately address Applicant’s contention that these conveyances still deal with entirely different methods for picking up very differently shaped products. One with ordinary skill in the art would not be motivated to combine the teachings of Yamazaki and Mueller because they deal with different considerations: Yamazaki deals with picking up fired glass plates from a furnace using scooping blocks while Mueller deals with picking up plastic or glass bottles at the neck. The fact that Yamazaki and Mueller are used for picking up products does not cure the deficiency that these systems operate completely different from each other.

The PTO also asserts that “Mueller was used only to teach a conveyor belt rather than the rollers in the device of Yamazaki.” (Paragraph 1 of outstanding office action.) It is respectfully submitted that Mueller was improperly relied upon by the PTO to teach the conveyance of plastic products. (Paragraph 6 of the outstanding office action.) As previously pointed out, one would not look at the device of Yamazaki (dealing with picking up fired glass plates from a furnace) and be motivated to search out Mueller so as to use the device of

Yamazaki for plastic bottles because these conveyances still deal with entirely different methods for picking up very differently shaped products.

In sum, one with ordinary skill in the art would not have been motivated to combine these two very different systems. Therefore, the combination of the teachings of Yamazaki and Mueller is improper, and thus the rejection of claim 1 based on this combination is equally improper.

(5) Allowability of claims 2 and 4-5.

Claim 2 is drawn to an apparatus for picking up a tacky plastic product lying on a conveyor belt and requires “carrier plates adapted to . . . lift the tacky plastic product by its lateral margins by peeling the tacky plastic product from a surface of the conveyor belt” and “a lift drive configured to lower the carrier plates so that the carrier plates settle resiliently on the surface of the conveyor belt when the carrier plates press against the surface of the conveyor belt.” Claim 2 is not rendered unpatentable over any combination of Yamazaki and Mueller because (as discussed above): (1) Yamazaki and Mueller do not teach the use of carrier plates to peel the plastic product off the belt, (2) Yamazaki and Mueller do not teach that the carrier plates settle resiliently on the surface of the conveyor belt, and (3) any combination of Yamazaki and Mueller is improper. Claims 4-5 depend from and contain all the features of claim 2, and are allowable therewith for at least the same reasons as claim 2 without regard to the further patentable features contained therein.

(6) Rejection of claim 14 is moot

Claim 14 is cancelled, which rendered this rejection moot.

For at least these reasons, favorable reconsideration of the rejection is respectfully requested.

Rejection of claim 3 based on Yamazaki, Mueller, and Miles

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of Mueller, further in view of U.S. Patent 5,247,761 (“Miles”). For at least the following reasons, this rejection is traversed.

Claim 3 depends from and contains all the limitations of claim 2, and is allowable over any combination of Yamazaki and Mueller for the same reasons as claim 2. In particular, claims 2-3 are not rendered unpatentable over any combination of Yamazaki and

Mueller because (as discussed above): (1) Yamazaki and Mueller do not teach the use of carrier plates to peel the plastic product off the belt, (2) Yamazaki and Mueller do not teach that the carrier plates settle resiliently on the surface of the conveyor belt, and (3) any combination of Yamazaki and Mueller is improper. Miles does not cure the deficiencies of Yamazaki and Mueller.

In addition, there is no motivation or suggestion to combine the teachings of Miles with the teachings of Yamazaki and Mueller as suggested by the PTO. Yamazaki teaches a system for picking up glass plates at their bottom surface, Mueller teaches a system for picking up plastic bottles by their neck, Miles teaches a system for picking up the root ball of a seedling. All these systems require different considerations (such as material strength, durability to stress, etc.) for picking up entirely different products in entirely different environments. For example, one with ordinary skill in the art simply would not be motivated to use the small spring steel grippers of Miles to pick up the much heavier glass plate of Yamazaki or as substitution for the more stable holding means of Mueller. Thus, any combination of Miles, Yamazaki, and Mueller would be improper because there is no motivation to look to the art of conveying the plant seedlings for use in the conveying of fired glass plates or in the conveying of glass or plastic bottles.

For at least these reasons, favorable reconsideration of the rejection is respectfully requested.

Rejection of claims 6, 8, and 16 based on Yamazaki, Mueller, and Cohen

Claims 6, 8, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of Mueller, further in view of U.S. Patent 6,332,636 ("Cohen"). Claims 6, 8, and 16 depend from and contains all the limitations of either claim 1 or claim 2, and are allowable over any combination of Yamazaki and Mueller for the same reasons as claims 1 and 2. In particular, claims 1-2, 6, 8, and 16 are not rendered unpatentable over any combination of Yamazaki and Mueller because (as discussed above): (1) Yamazaki and Mueller do not teach the use of carrier plates to peel the plastic product off the belt, (2) Yamazaki and Mueller do not teach that the carrier plates settle resiliently on the surface of the conveyor belt, and (3) any combination of Yamazaki and Mueller is improper. Cohen does not cure the deficiencies of Yamazaki and Mueller. For at least these reasons, favorable reconsideration of the rejection is respectfully requested.

Rejection of claim 7 based on Yamazaki, Mueller, and McGill

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of Mueller, further in view of U.S. Patent 4,183,428 ("McGill"). Claim 7 depends from and contains all the limitations of claim 2, and is allowable over any combination of Yamazaki and Mueller for the same reasons as claim 2. In particular, claims 2 and 7 are not rendered unpatentable over any combination of Yamazaki and Mueller because (as discussed above): (1) Yamazaki and Mueller do not teach the use of carrier plates to peel the plastic product off the belt, (2) Yamazaki and Mueller do not teach that the carrier plates settle resiliently on the surface of the conveyor belt, and (3) any combination of Yamazaki and Mueller is improper. McGill does not cure the deficiencies of Yamazaki and Mueller. For at least these reasons, favorable reconsideration of the rejection is respectfully requested.

Rejection of claims 9-12 based on Yamazaki, Mueller, and Dischler

Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of Mueller, further in view of U.S. Patent 6,279,211 ("Dischler"). Claims 9-12 depend from and contains all the limitations of either claim 1 or claim 2, and are allowable over any combination of Yamazaki and Mueller for the same reasons as claims 1 and 2. In particular, claims 1-2 and 9-12 are not rendered unpatentable over any combination of Yamazaki and Mueller because (as discussed above): (1) Yamazaki and Mueller do not teach the use of carrier plates to peel the plastic product off the belt, (2) Yamazaki and Mueller do not teach that the carrier plates settle resiliently on the surface of the conveyor belt, and (3) any combination of Yamazaki and Mueller is improper. Dischler does not cure the deficiencies of Yamazaki and Mueller. For at least these reasons, favorable reconsideration of the rejection is respectfully requested.

Rejection of claim 17 based on Yamazaki, Mueller, and Palmer

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of Mueller, further in view of U.S. Patent 5,088,592 ("Palmer"). Claim 17 contains all the limitations of claim 2, and is allowable over any combination of Yamazaki and Mueller for the same reasons as claim 2. In particular, claim 2 and 17 are not rendered unpatentable over any combination of Yamazaki and Mueller because (as discussed above): (1) Yamazaki and Mueller do not teach the use of carrier plates to peel the plastic product off the belt, (2) Yamazaki and Mueller do not teach that the carrier plates settle resiliently on the surface of

the conveyor belt, and (3) any combination of Yamazaki and Mueller is improper. Palmer does not cure the deficiencies of Yamazaki and Mueller.

In addition, there is no motivation or suggestion to combine the teachings of Palmer with the teachings of Yamazaki and Mueller as suggested by the PTO. Yamazaki teaches a system for picking up glass plates after being fired, Mueller teaches a system for picking up plastic bottles, and Palmer teaches method of conveying and depositing an adhesive, flexible material (such as a thermoplastic resin) to a molding press station. All these systems require different considerations (such as material strength, durability to stress, etc.) for picking up entirely different products in entirely different environments for entirely different processes. There is no suggestion anywhere in the prior art or in general knowledge that the fired glass plate of Yamazaki or the glass plastic bottle of Mueller requires the molding press station of Palmer after being picked up. Because there is no motivation to combine the teachings of Palmer with the teachings of Yamazaki and Mueller, claim 17 is not rendered unpatentable over the prior art. For at least these reasons, favorable reconsideration of the rejection is respectfully requested.

Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date 12/19/2006

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